DOCUMENT RESUME

ED 331 157 EA 022 910

AUTHOR Hough, David L.
TITLE Middle Level Organization--A Curriculum Policy Analysis.
PUB DATE Mar 91
NOTE 63p.; Paper presented at the Annual Meeting of the National Association of Secondary School Principals (Orlando, FL, March 1991).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Educational Philosophy; *Elementary School Curriculum; *English Curriculum; Intermediate Grades; Junior High Schools; *Language Arts; *Middle Schools; Organizational Climate; *School Organization; Teacher Attitudes; Teacher Characteristics; *Writing Instruction

ABSTRACT

The relationship of the middle-level writing curriculum to four influences on English language arts teachers' writing practices and instructional programs are explored in this report. The four variables include school organizational structure, philosophical commitment to middle-school programs, policy structure, and teacher characteristics. The research focuses on three questions: the type of middle-grade writing curriculum and instruction; program differences among school organizational types; and the relationship among organizational school type, philosophical commitment to programs, and teacher characteristics. A survey questionnaire was developed to gather data on teacher characteristics, the writing curriculum, school programs, and pertinent policies. Personal interviews, document analysis, focus groups, and field testing were used to develop the survey instrument. The questionnaire was administered to a random stratified sample of counselors, principals, and teachers in 300 schools with four grade-span configurations: K-8; 6-8; 7-8; and 7-9. The total school response rate was 59 percent, or 178 responses. Findings indicate that middle-grades writing curriculum is most frequently a part of the core curriculum. Significant differences among school grade-span types regarding the level of program implementation are influenced by the level of philosophical commitment; as school grade spans include lower-lower-grade levels, the level of commitment to the program increases. A conceptual model of latent variables that impact the middle-level writing curriculum--teacher characteristics, philosophical commitment, writing curriculum, policy, and school grade-span organization--is developed. Sixteen tables and six figures are included. (53 references) (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED331157

MIDDLE LEVEL RESEARCH SYMPOSIUM

Title: **Middle Level Organization--**
A Curriculum Policy Analysis

by

David L. Hough
Research Fellow
California Educational Research Cooperative
University of California, Riverside

Paper Presented to the
National Association of Secondary School Principals
National Convention

Orlando, Florida
March 10, 1991

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D. Hough

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

EA 022 910

Introduction

Evolution of the Middle School

Scholars who have examined middle grades development often cite a few dominant, influential national reports that greatly impacted administrative decision-making with regard to middle level education (Alexander, 1984; Gruhn and Douglass, 1971; Lounsbury, 1984; Melton, 1984). Lounsbury (1984) cites the period from 1890 to 1920 as a struggle between academics and vocations. Nineteenth century school administrators wanted an 8-4 plan (8 years of elementary and 4 years of secondary schooling) to accommodate the many students who dropped out after the 8th grade; and early 20th century policy makers viewed the 6-6 plan as more efficacious, believing this would better facilitate the movement of students into the labor force at a younger age.

According to Lounsbury (1984),

> Education in the United States has always presented many patterns of school organization, both between states and within states. Even as the 8-4 plan seemed to have gained full acceptance in the late 1800s as the right way to organize public education, a few areas of the young nation followed an 8-5 plan while others went with a 7-4 arrangement. Then the dominant 8-4 plan itself received a challenge from developments that followed. . . . (p. 2)

As early as 1888, Charles W. Eliot, then President of Harvard, led a National Education Association study that produced an agenda for middle level education. Eliot's statements to the Superintendents' Association in 1888 had a profound effect on subsequent school policy regarding the education of children in middle grades. As chairman of the 1892 Committee of Ten, Eliot and the other committee members issued an influential report calling for several courses, (e.g., algebra, geometry, foreign

languages) to begin during the last years of elementary education which, in turn, were to be reduced from eight to six years (National Education Association, 1894). These recommendations were soon followed by the so-called "reorganization" movement, as several national committees (including the Committee of Fifteen and the Committee on Economy of Time) espoused the efficacy of a junior high school and issued a barrage of recommendations for middle level reform.

These various committee recommendations have been grouped by Alexander (1988) into four categories that sought to:

> (1) Bridge the gap between the more student-centered elementary school and the more subject-centered high school. (2) Serve the unique needs of the age group (from about 10 to 15 years of age). . . . (3) Provide a broader program, with some options for students. . . . (4) Solve various enrollment, facilities, and other administrative problems. . . (p. 107).

Thus the groundwork was laid for the advent of junior high schools which emerged circa. 1910-1920.

In 1927 Leonard Koos issued the first statement of purposes of junior high schools; he implored schools to: retain students in school, economize instruction time, recognize and provide for individual differences, provide more extensive guidance, initiate vocational education, recognize the nature of adolescence, begin subject matter departmentalization, and increase students' education and socialization opportunities by providing physical education (Alexander & George, 1981). The middle level school's mission was codified by Gruhn & Douglass (1940) who developed a list of six essential functions for the junior high: (1) integration (2) exploration (3) guidance (4) differentiation (5) socialization (6) articulation (pp. 31-32).

The junior high school was created, then, to replace the 1800's 6-6 or 8-4

organization pattern with a 20th century 6-2-4 or 6-3-3 configuration (6 years of elementary, 2 years of junior high, 4 years of high school or 6 years of elementary, 3 years of junior high, 3 years of high school, respectively).

In the early 1960's the middle school was born. Founded on many of the same principles as the traditional junior high school, the middle school was predicated on the insistence for professionalism and greater attention to the special needs of pre-adolescents. Many educators perceived the junior high programs as a "failed" promise and turned to the middle school as an affirmation of a higher level of commitment.

Alexander (1984) offered two very practical reasons for the establishment of middle schools; these two reasons which tend to override all other explanations are:

> (1) the earlier maturation of girls and boys during the middle school years, with related, increasing concern about the traditional program's match with the needs of that age group, and (2) local problems of buildings, enrollments, desegregation, and other such matters. (p. 14)

Brooks and Edwards (1978) identified at least three strong reasons for reorganization and adoption of middle school programs: (1) to provide a program specifically designed for children in this age group, (2) to create a "bridge" between elementary schools and high schools, and (3) to move grade nine into the high school.

Just as many scholars, educators, and researchers believed that junior high schools had failed to address adequately program reforms (see Melton, 1984, for example), a 1981 NASSP survey found that many "middle schools" were established by districts to alleviate overcrowding rather than to achieve program-related revisions (Valentine, et al., 1981). In addition, Lounsbury and Vars (1978) affirmed that efforts to eliminate racial segregation spurred some districts to reorganize with middle

schools. Alexander and George (1981) cite sundry political and administrative reasons for instituting middle schools. Toepfer, et al., (1986) add that "logistics, school population factors, and economics in the local district must be understood. Middle level school program needs must be prioritized within such parameters (p. 6)."

Still, the number of new middle schools replacing traditional junior highs has progressively increased over the past thirty years (Alexander, 1967; Brooks, 1977; Compton, 1974; Cuff, 1966; Kealy, 1970). Reviews by Gatewood (1972) and Calhoun (1983) produced significant research dealing with the differences between junior highs and middle schools. While programmatic differences were difficult to discern, Calhoun concluded that 9th graders' developmental/maturation stages are more like 10th graders'; 6th graders are more like 7th graders. The growing perception is that 6th graders belong in a middle level school while 9th graders belong in a high school ("This We Believe", 1982).

Alexander and George (1981) note that "the emergence of the middle school at least in terms of grade organization and title can be readily documented (p 12)"; real program and curricular reform is more difficult to determine, however. Any curricular reform movement is necessarily tied to the special needs of the group of children to be served. William Alexander, father of the middle school concept, defines the middle school as one "providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school's program for earlier childhood and in turn is built upon by the high school's program for adolescence. Specifically, it focuses on the educational needs of what we have termed the 'in-betweenager'. . . (Alexander, 1968, p. 3). More recently Alexander and

George (1981) define a middle school as "a school of some three to five years between the elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned (p. 3)."

Donald Eichhorn (1966) coined a new term for this phase -- transescences -- which he defines summarily as:

> The stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur for all precisely at the same chronological age in human development, the transescent designation is based on the many physical, social, emotional, and intellectual changes in body chemistry that appear prior to the time which the body gains a practical degree of stabilization over these complex pubescent changes. (p. 3)

Tanner (1962) notes that the human biological being is maturing at an accelerated rate, i.e., we are "growing up" faster. For example, he notes that "age at menarche has been getting earlier by some 4 months per decade in Western Europe over the period of 1830-1960 (1962, p. 43)." Eichhorn (1973) argues that students should be grouped according to developmental stages rather than the traditional chronological method.

David Elkind (1978) suggests that the physical, biological changes occurring during pre-adolescence may be even less a factor than simply a lack of sophistication to adjust to the mental changes in cognitive **and** affective domains. "Adolescent behaviors . . . derive . . . from intellectual immaturity as described by Piaget" (p. 134).

Epstein (1980) argues that because pre-adolescents have not reached a higher level of "formal operational reasoning"; therefore, exposure to, say three years of

curriculum based on formal reasoning, will be ineffective due to the middle schooler's inability to adjust at this level of development. Epstein and Toepfer (1978), Epstein (1978,1980), Toepfer (1980,1986), Hensley (1985), and Sylwester (1981, 1982) suggest that brain growth patterns indicating "plateaus" for most transescents (albeit different between boys and girls) may need to be considered when organizing schools to meet this unique developmental stage.

Several interesting research findings regarding a variety of organizational issues were reported by the Center for Research on Elementary and Middle Schools (CREMS) at Johns Hopkins University. McPartland (1987) found that self-contained classrooms were conducive to student-teacher relations but less effective on the quality of instruction than departmentalization, which benefitted specialized subject matter at a cost to student-teacher relations.

Becker (1987) determined that, "elementary school settings benefit students from low social backgrounds, as does having instruction provided by a limited number of teachers" (p. ii). He also concluded that,

> Sixth-grade students experience school under a variety of organizational structures, from highly tracked, highly departmentalized middle schools to self-contained, heterogeneous elementary school classrooms. Research about the impact of alternative organizational structures has not been clear and consistent. Partly, this may be because an organizational feature may have offsetting advantages and disadvantages for different groups of students. . . . Instructional specialization and middle school environments may assist learning by high ability students but may hinder learning by low ability students and that between-class ability grouping may help high ability students but not help low- or low-average ability students. . . . (Becker, 1987, p. 23)

McPartland, Coldiron, and Braddock (1987) found a continuum of "pupil orientation" to "subject-matter" orientation from elementary through high school:

> (1) Grade level is a strong correlate of all school practices. (2) Between-class grouping and within-class grouping may be alternate school practices for creating homogeneous instructional groups . . . although within-class grouping is infrequently used in secondary schools. (3) The average socio-economic status (SES) of students in a school is not a strong correlate of staffing, scheduling or groping practices used in a school. (4) Size of school does not account for the observed grade level relationships. (pp. 14-15)

Braddock, Wu, and McPartland (1988) found that school grade span arrangements are "correlated with specific demographic characteristics of schools and school districts including location, school size, and school and community ethnic and socioeconomic composition" (p. 8).

These studies, taken together, tell us that middle level school children are grouped in a variety of different ways both vertically, among school grade span configurations, and horizontally, within the schools themselves. Because these variances may be related to factors other than the concept of an ideal type or organizational pattern, no definition of a middle school based on grade span configuration produces consistent data regarding the type of educational program middle level learners experience. Hence, much work is yet to be done in order to understand fully how school organization either promotes or hinders implementation of middle level programs and practices.

In 1989 the Carnegie Council of Adolescent Development published a national "wake-up call" titled *Turning Points: Preparing American Youth for the 21st Century*. "*Turning Points*" articulates an imperative need to give attention to changing pre-adolescents in a rapidly changing, highly volatile society and to design school programs to meet these needs. This document calls to attention the need to study more

thoroughly the individual and societal needs of middle school aged youngsters and to implement and evaluate programs designed to meet those needs.

Life in the Three 6th Grades (1988) by Lounsbury and Johnston and *Inside Grade 8--From Apathy to Excitement* (1990) by Lounsbury and Clark are "shadow studies" that document similarities and differences among different programs for these two specific age groups. My own pilot study, *Middle Level Education in California* (1989) provides insights into the program differences among schools with varying grade span configurations. By understanding the types of programs and organizational structures impacting middle schoolers, scholars will be better prepared to design and develop research studies to address social and organizational features impacting students in the middle of our graded educational structure.

The Middle Level Writing Curriculum

Research on middle schools is now over two and a half decades old; research on writing theory is several decades old. Yet, the two fields have not been integrated adequately to produce a significant domain of study. This fact, coupled with a recent, growing national concern to reorganize and restructure American public education, presents an imperative need to understand more about the unique nature of the middle school curriculum. This sentiment is echoed the Quality Education for Minorities Project, Massachusetts Institute of Technology, in their publication *Education that works: An action plan for the education of minorities* (1990).

Because writing is deemed a fundamental and necessary skill (like reading and mathematics) at all grade levels, it is a viable content area to explore in order to answer questions pertaining to other curricula, as well. To date, no studies have

combined the research findings from middle school studies with research pertinent to writing theory to ascertain whether or not children are receiving a truly unique middle school writing program or whether or not those writing programs are based on middle level curriculum philosophy. In addition, little empirical evidence can be found to answer definitively what type of grade-span configuration can best facilitate the development and implementation of the most appropriate middle level writing curricula.

In my recent bibliographical study of writing theory Hough (1990), I use three analytic matrices to categorize the research on writing. The cells of these matrixes contain bibliographic citations of seminal studies. One matrix contains a mix between **age or grade level** studied and the **writing topic** addressed; another matrix depicts the relationship between **age or grade level** and the **specific writing strategy** tested. The third matrix is a comparison of the **age or grade level** and the type of report or narrative form in which the information is presented (a book, journal article, paper presentation, or dissertation). Using these three matrixes to evaluate over 300 studies, the following conclusions were drawn:

> (1) Age/grade level studies can be grouped into five categories: early childhood / elementary (pre-kindergarten to grade 6), middle school (grades four through nine), secondary (grades six through twelve), college, and "general" theory.
>
> (2) Scholarly cohort groups consisting of noted researchers exist at each level in number 1 above except at the middle school level.
>
> (3) Most all middle level writing research has been confined to dissertations that have not yet found their way to publication.
>
> (4) These unpublished dissertations account for slightly more than 30% of the studies on writing theory.

(5) Virtually all of these dissertations use designs which test the effects of one strategy (e.g., sentencing combining) over others (e.g., the study of traditional grammar, the process approach, or outlining).

(6) Findings from these studies are largely confusing and contradictory. That is where one scholar found a writing strategy to be more effective than another, a different scholar found the opposite. This leads one to suspect that other factors not accounted for in the research designs are influencing student writing proficiency at the middle level. (Hough, 1990)

Purpose of the Study

This study postulates a research-based policy framework examining the relationship of the middle level writing curriculum to four spheres of influence found to impact English language arts teachers' writing practices and instructional programs: school organizational structure, philosophical commitment to middle school programs and practices, policy decisions, and teacher characteristics.

The content and instructional practices of the middle level writing curriculum are described, classified and analyzed to assess the degree to which different writing experiences for children at the middle level vary within different school grade-span configurations. Although the many school dimensions broached in this study can be used to address a number of diverse inquires, the focus, here, is on three research questions:

(1) What type of writing curriculum and instruction do middle level grades children experience?

(2) How do various writing curriculum and instructional components differ among different school organizational types, i.e., grade span configurations.

(3) What is the relationship among organizational school type, philosophical commitment to middle level programs and practices, policy, and teacher characteristics to the middle level writing curriculum.

Method

Survey Development

A survey questionnaire was developed to generate data pertaining to (1) teacher characteristics, (2) the writing curriculum, (3) school programs, and (4) policies influencing the writing curriculum. To develop the survey instrument, data from the research literature were combined with a four-step ethnographic process: personal interviews, document collection, focus groups, and field testing.

Semi-structured personal interviews were conducted with two middle school principals, two counselors, a district language arts coordinator, a writing project director, and four middle school English language arts teachers . An interview protocol was established to elicit from these participants important elements pertaining to the above mentioned domains. Data gathered from these interviews were combined with literature review information and used to draft the survey.

Next, meetings were held with two focus groups at two different 6-8 grade span schools in a southern California school district. The focus group participants consisted of principals, counselors, and teachers from the following content areas: English language arts, science, history/social studies, mathematics, physical education, and art.

Documents were also collected. Various curriculum guidelines and the *California State English Language Arts Framework* were used to gather more information which was incorporated into the survey instrument. These data were triangulated with literature review, interview, and focus group data to produce the survey instrument.

The survey questionnaire was field tested with a group of twenty-nine students

in a University of California, Riverside, curriculum class -- *EDU 173B: Teaching Writing to Children*. Each class member completed a survey questionnaire in an average time of fourteen minutes; after which, the survey format was discussed, to search for ambiguities, and problems with syntax, clarity, and mechanics.

The survey instrument was then reproduced in three separate formats: one each for teachers, principals, and counselors. While the teacher survey instrument consisted of seventy questions, the principal and counselor surveys included only twenty-eight questions, those pertaining to school programs, practices and policies.

Survey Questions

To determine the level of commitment to middle school programs and practices, respondents were asked to estimate the number of students in their school who were exposed to various programs and practices. For this section, a seven-point Likert-type scale was used on 18 variables with the following descriptors: 0 = None, 1 = Few, 2 = Some, 3 = About one half, 4 = Most, 5 = All, and 6 = Don't know.

A similar scale was used for respondents to rate the degree of influence each of ten items had on the writing curriculum. The following scale was used for this section: 0 = None, 1 = Little, 2 = Some, 3 = Moderate, 4 = Significant, 5 = Great, 6 = Don't know. Taken together, data collected from principals, counselors, and teachers were used to form a school grade span unit of analysis. Neither individuals nor schools were identified or analyzed separately.

Teacher questionnaires provided additional demographic/descriptive data including: age, gender, highest degree held, the number of years the individual had been teaching full time, the number of district in-service days dealing specifically with

the teaching of writing the teacher had attended during the course of the teacher's career, the number of summer writing workshops attended, what type of instructional time (i.e., single unit blocks, multiple unit blocks, continual instruction, or some combination of instructional blocks and continual time) the teacher spent on teaching writing, the grade level(s) the teacher preferred to teach, the grade level(s) the teacher felt prepared to teach writing, and the amount of time the teacher spent on teaching students how to write.

The second section of the teacher questionnaire consisted of 27 questions about the teacher's writing curriculum and instructional practices. Again, a seven-point Likert-type scale was used. Teachers were asked to rate the frequency with which they included various items such as peer editing, small group work, holistic grading, and other instructional practices in their writing curriculum. The following scale was used: 0 = Never, 1 = Seldom, 2 = Occasionally, 3 = 50% of the time, 4 = Often, 5 = Always, 6 = Don't know." All "Don't know" responses on each of the three above mentioned sections were analyzed for frequencies and then recoded and treated as mean substitutions for subsequent analyses.

Selection of the Sample

1989-90 California Basic Education Data System (CBEDS) School Information Files (SIF) data were downloaded onto the University of California, Riverside, VAX. From these data, state school information were analyzed. According to the CBEDS, California has 1,013 public school districts, excluding community colleges. There are 7,358 schools in the state with an average daily attendance of 4,771,978 students. These schools represent 75 different grade span configurations, from the 13

kindergarten-only schools to the two twelfth-grade-only schools. (These include "special" or alternative schools.)

The sample was stratified on two dimensions: (1) **grade spans** that included at least 100 schools and (2) a **seventh grade cohort of 40 or more students**. Seventh grades were found in 34 different grade span configurations. Of these, four grade span configurations -- K-8, 6-8, 7-8, and 7-9 -- met the stratifying criteria. Three hundred schools were chosen at random, seventy-five schools from each of the four grade span schools. Table 1 shows the sample and stratified population for each grade level. The total sample represents 26.1% of the entire state stratified population.

Table 1.

Population and Sample
Stratifying on Grade Spans and Enrollment

Grade Spans	Stratified School Population	Sample (Schools)	Sample Percent of Population
K-8	267	75	28.1%
6-8	397	75	18.9%
7-8	355	75	21.1%
7-9	129	75	58.1%
Total	1,148	300	26.1%

Survey Data Collection

A packet consisting of a cover letter addressed to the building principal, one principal questionnaire, two or more counselor questionnaires, and three or more teacher questionnaires was prepared for each of the 300 sites. A self-addressed,

postage-paid envelope was attached to each questionnaire. The packets contained a total of 2,383 surveys and were mailed to school sites on November 12, 1990. A note in the introductory paragraph at the top of each questionnaire requested that individuals return their completed questionnaires on or before December 20, 1990. No surveys returned after January 9, 1991, were included for analysis.

While one principal's questionnaire was included in each school's packet, specific formulas were developed to estimate the number of forms needed for counselors and teachers at each site. One counselor questionnaire was enclosed for each K-8 school. For the 6-8 schools, two counselor questionnaires were enclosed if the school's enrollment were under 1,000 students and three questionnaires were enclosed if the school's enrollment were over 1,000 students. Two counselor questionnaires were enclosed in each 7-8 school's packet, regardless of enrollment, and three counselor questionnaires were enclosed in each 7-9 school's packet, regardless or enrollment. These were "best guest" estimates that had previously been found consistent with personnel demographic data produced by Hough's (1989) pilot study of school programs and organization. As Table 2 shows, 178 separate school sites were represented by one or more respondents. Although individual response rates were low, the total school response rate was 59%.

Table 2.
Sample and Response Rate
Number and (Percent)
[Bolded numbers & percents are school-level aggregates.]

Grade Spans	Surveyed					Returned*				
	P	C	T	Total P,C,T	Tot. S	P	C	T	Total P,C,T	Total S
K-8 Total	75	75	271	421	**75**	33 (44%)	19 (25%)	68 (25%)	120 (29%)	37 (49%)
K-8 Valid						28 (37%)	10 (13%)	57 (21%)	95 (23%)	**31 (41%)**
6-8 Total	75	187	327	589	**75**	45 (60%)	71 (38%)	129 (39%)	245 (41%)	52 (69%)
6-8 Valid						44 (59%)	55 (29%)	125 (38%)	224 (38%)	**51 (68%)**
7-8 Total	75	150	411	636	**75**	48 (64%)	63 (42%)	143 (35%)	254 (40%)	57 (76%)
7-8 Valid						48 (64%)	61 (41%)	138 (34%)	247 (39%)	**57 (76%)**
7-9 Total	75	225	435	735	**75**	34 (45%)	68 (30%)	108 (25%)	210 (29%)	39 (52%)
7-9 Valid						34 (45%)	66 (29%)	105 (24%)	205 (28%)	**39 (52%)**
(All) Total	300	637	1,444	2,381	**300**	160 (53%)	221 (35%)	448 (31%)	829 (35%)	185 (62%)
(All) Valid						154 (51%)	192 (30%)	425 (29%)	771 (32%)	**178 (59%)**

[* Total and valid percentages of surveyed;
P = Principals, C = Counselors, T = Teachers, S = Schools]

Data Analysis

The adequacy of the sample was tested statistically, and then the data were analyzed for frequency distributions then through the use of means and standard deviations, analysis of variance (ANOVA), and post hoc Student-Newman-Keuls multiple comparison tests ($p < .05$). Exploratory factor analysis utilizing the maximum likelihood method of extraction and varimax rotation were used to explore underlying interrelationships among the variable set.

A distribution-free (non-parametric) statistic was used to test if differences existed between the stratified population and the surveyed sample, the surveyed sample and the returned and usable sample, and the stratified population and the returned and usable sample. Using enrollment as the test measure, A Kolmogorv-Smirov Z of .874 ($p=.791$) was obtained between the stratified population and the surveyed sample and a Z of .794 ($p=.612$) was obtained between the surveyed sample and the returned and usable sample. Both statistics indicate no significant differences between these groups. A third Kolmogorv-Smirov Z was calculated between the stratified population and the returned and useable sample. This produced a Z of .694 ($p=.547$), indicating no significant difference.

Next, it was of interest to determine if the response distribution was similar to the surveyed distribution. This calculation was made by comparing the survey sample distribution to the returned and usable sample distribution by position and by grade span. Chi-square tests were performed row-wise (by grade span), column-wise (by position), and table wise (grade span by position). The returned and usable sample was not significantly different form the surveyed sample on any of these

measures [row-wise (X = 0.3948, p = .689), column-wise (X = 1.049, p = .714, and table-wise (X = 2.478, p = .917)].

Frequency distributions indicated that most English language arts teachers in each of the four grade span groups were female, with 7-8 schools having the greatest number (83.3%) and K-8 schools with the fewest (66.7%). Just over eighty-two percent of the 6-8 teachers are female and 74.3% of the 7-9 teachers are female. While only 5.3% of the K-8 teachers are fifty years of age or older, almost twenty-four percent of the 7-8 teachers are in this age group. The average age of teachers for each grade span is: K-8 = 44; 6-8 = 46; 7-8 = 47; 7-9 = 47.5. Although these averages are quite close, the age range distributions are markedly different for the K-8 teachers, compared to the other three groups. Almost ninety-five percent of all K-8 teachers are under age fifty, approximately 15% more than the other grade span groups.

On average, the K-8 English language arts teachers have been teaching 10 years; 6-8's, 7-8's and 7-9's averaged 13 years. Almost 43% of the 7-9 teachers hold advanced degrees, compared to 35.5% of the 7-8 teachers; 33.6% of the 6-8 teachers; and 24.6% of the K-8 teachers. More 7-8 teachers (3.6%) are likely to hold doctorate degrees, however, than any other grade span group.

Just over sixty-one percent of all K-8 teachers provide writing instruction to one grade-level only, either the 6th, 7th, or 8th. Almost 65% of the 6-8 teachers provide writing instruction to a single grade-level; 66% for 7-8 teachers, but only 42.8% of the 7-9 teachers provide instruction to a single grade-level -- 17.1% teach to grades 7 & 8; 14.3% teach to grades 8 & 9; and 18.2% teach to grades 7, 8 & 9. It appears that

the most common grade-level instructional combination is for grades seven and eight, as 26.3% of the K-8 teachers provide such instruction, as well as 22.4% of the 6-8 teachers, and 34.1% of the 7-8 teachers. No K-8 English language arts teacher surveyed provided direct writing instruction to any grade other than 6, 7 or 8.

Although some teachers in each grade span group indicated that they had not taken any college courses dealing with teaching school children how to write, most had taken two or more such college classes -- 72% of the K-8 teachers, 76.8 of the 6-8 teachers, 78.9% of the 7-8 teachers, and 63.8% of the 7-9 teachers. More 7-8 teachers (42%) had taken five or more college courses dealing the teaching of writing than any other group. A similar trend can be seen regarding the number of district in-service days dealing with the teaching of writing that teachers had attended. Although some teachers in each group reported having attended no such training, most reported having attended between one and fourteen days. The trend to having attended either between one and four, five and nine, or ten and fourteen writing in-service days was fairly uniform across grade spans, although 21.7% of the 7-8 teachers and 24.8% of the 7-9 teachers had attended 20 or more such days.

Also similar across the different grade spans was the number of summer writing seminars the teachers had attended. Most had not attended any: 71.9% of the K-8 teachers, 70.4% of the 6-8 teachers, 64.5% of the 7-8 teachers, and 61% of the 7-9 teachers. Slightly over 21% of the K-8 teachers had attended one or more writing seminars, while 24% of the 6-8 teachers, 28.9% of the 7-8 teachers, and 26.7% of the 7-9 teachers had attended one or more.

In terms of which grade level(s) the teachers feel they are prepared to teach,

38.6% of the teachers K-8 teachers feel prepared for the middle level, compare to 28% of the 6-8 teachers, 29% of the 7-8 teachers, and 29.5% of the 7-9 teachers. While most K-8, 6-8, and 7-8 teachers feel prepared to teach elementary grades as well as middle grades; 29.8%, 28%, and 15.9%, respectively, more 7-9 teacher feel prepared to teach high school as well as middle school -- 43.8%. A somewhat similar trend is seen when asked with grades the teacher prefer to teach. Almost 62% of the K-8 teachers said they preferred to teach to middle school children, compared to 57.6% of 6-8 teachers, 56.5% of the 7-8 teachers, and 40% of the 7-9 teachers. More 7-9 and 7-8 teachers prefer to teach high school as well as middle school, 29.5% and 21.7%, respectively. These same two groups are less inclined to teach elementary grades as well as middle grades, as only 5.7% of 7-9 and 5.1% of 7-8 teachers indicated such a preference. Hence, it would appear that while K-8 and 6-8 teachers prefer to teach at the elementary level as well as the middle level, 7-8 and 7-9 teachers prefer to teach at the high school level as well as the middle level.

When ANOVA techniques were applied to the ten descriptive variables mentioned above, it was found that statistically significant differences existed in three areas only: gender, age, and the number of years teaching. K-8 schools had more male English language arts teachers than did 6-8 schools ($F = 8.7696$, $p < .0001$), and K-8 teachers are younger, on average, than either their 7-8 or 7-9 counterparts ($F = 3.0021$, $p = .01$). Also, K-8 teachers have fewer years' teaching experience than 6-8 teachers ($F = 2.3235$, $p = .045$).

The greatest percentage of teachers in each group provide direct writing instruction to students sixty days or more throughout the school year -- 47.4% of K-8

teachers, 55.2% of 6-8 teachers, 42.8% of 7-8 teachers, and 51.2% of 7-9 teachers. Very few teachers spend fewer than four weeks teaching student how to write, only 3.5% of K-8 teachers, 2.4% of 6-8 teachers, 2.2% of 7-8 teachers, and 5.7% of 7-9 teachers.

Overwhelmingly, all teachers across the four groups either teach writing in several unit blocks or in a combination blocks and continually over time, 94.8% of K-8 teachers, 94.4% of 6-8 teachers, 92% of 7-8 teachers, and 90.5% of 7-9 teachers. No significant differences existed among the teachers in the four grade spans with regard to how many days they spend teaching writing or the format used. Indeed, the teachers are more alike than different across all four grade spans, in this respect.

Table 3 shows the means and standard deviations for the teacher survey responses to questions pertaining to their writing curriculum and instructional practices. Significant differences were found among the grade span types in only 3 of the 26 writing program components: peer editing ($F = 7.0769$, $p = .0001$), cross-age tutoring ($F = 3.2687$, $p = .0213$), and library/research paper/report assignments ($F = 3.4556$, $p = .0165$). K-8 schools differed from 7-8 and 7-9 schools and 6-8 schools, likewise, differed from 7-8 and 7-9 schools in peer editing. Both K-8 and 6-8 schools made greater use of peer editing than did either 7-8 or 7-9 schools. Cross-age tutoring was more prevalent in K-8 schools than in 7-8 schools, and library/research papers, reports were assigned more frequently in K-8 schools than in 7-8 or 7-9 schools.

Analyses pertaining to school programs and practices and the factors that influence the writing curriculum were made by combining all three respondent groups' scores on these variables. Tables 4 and 5 show the means and standard deviations for the within group totals for programs & practices and policy factors,

Table 3.

Writing Curriculum & Instructional Practices
Means and (Standard Deviations)
by Grade Span

[Teachers were asked how often they included the following practices in their writing program, using the following scale: Never = 0; Seldom = 1; Occasionally = 2; 50% of the time = 3; Often = 4; Always = 5.)

Variable	K-8 n=57	6-8 n=125	7-8 n=138	7-9 n=105
Peer Editing	3.4737 (1.2832)	3.4720 (1.0984)	2.9783 (1.1170)	2.9200 (1.1779)
Cross-age Tutoring	1.4561 (1.3896)	.9590 (1.3691)	.8984 (1.0783)	1.2796 (1.5973)
Core Curriculum	3.8545 (1.3391)	4.0855 (1.1859)	3.7087 (1.4204)	3.7273 (1.4486)
Interdisciplinary Teams	2.3023 (1.5817)	1.9912 (1.6266)	1.8425 (1.6687)	1.7083 (1.7040)
Large Group Work	3.2331 (1.2059)	3.2177 (1.2400)	3.1037 (1.1987)	3.2376 (1.2818)
Small Group Work	3.3333 (.9880)	3.2960 (1.0002)	3.0870 (1.0772)	3.0100 (1.0298)
Individualized Instruction	2.9464 (1.2565)	2.5840 (1.2584)	2.4706 (1.1284)	2.5714 (1.3238)
Programmed Techniques	2.0000 (1.5811)	1.6321 (1.5573)	1.7739 (1.5898)	1.7753 (1.5937)
Prewriting Techniques	4.1579 (.9218)	4.1200 (1.0519)	4.0072 (1.0358)	4.0900 (1.357)

-- Table 3 continued --

Variable	K-8 n=57	6-8 n=125	7-8 n=138	7-9 n=105
Sentence Combining	3.0175 (1.2173)	2.7280 (1.2338)	2.6343 (1.2173)	2.6300 (1.2525)
Story Starters	2.7544 (1.3267)	2.5360 (1.3769)	2.6519 (1.3401)	2.5644 (1.3814)
Interest Inventories	2.5000 (1.2701)	2.0661 (1.3212)	2.2214 (1.1786)	1.9794 (1.3691)
The Writing "Process"	4.2281 (1.0180)	4.0403 (1.0850)	3.9474 (1.0753)	3.7624 (1.3126)
Holistic Grading	3.7308 (1.2064)	3.3659 (1.3445)	3.2879 (1.3733)	3.4388 (1.3166)
Criterion Referenced Grading	3.0638 (1.2581)	2.7339 (1.4443)	2.8632 (1.3640)	2.9432 (1.3843)
Norm Referenced Grading	1.8333 (1.3954)	1.4949 (1.3122)	1.4787 (1.3499)	1.6154 (1.4071)
Interviewing	2.1296 (1.0824)	1.9667 (1.0202)	1.8240 (.9677)	1.8557 (1.0606)
Writer-teacher Conferences	2.6111 (1.3793)	2.2720 (1.2532)	2.1791 (1.1162)	2.2900 (1.3655)
Rewriting	4.0877 (.9118)	3.9440 (1.0105)	3.8043 (1.0026)	3.7723 (1.1566)
Multiple Drafts	3.8421 (1.0655)	3.6880 (1.2076)	3.5474 (1.1942)	3.5900 (1.2235)

-- Table 3 continued --

Variable	K-8 n=57	6-8 n=125	7-8 n=138	7-9 n=105
Read-around Groups	3.0702 (1.2373)	2.9758 (1.3937)	2.9478 (1.3562)	2.9505 (1.3295)
Literature	4.1754 (.9472)	4.1680 (.9566)	4.2059 (.7805)	4.0980 (.9282)
Reading	4.1636 (.9768)	4.0246 (1.1461)	4.0310 (1.0748)	4.0825 (1.0172)
Essay Exams	3.0179 (1.4953)	3.1371 (1.4446)	3.2391 (1.2875)	3.0490 (1.4514)
Library/ Research/ Papers, Reports	2.9298 (1.2372)	2.7254 (1.2053)	2.4118 (1.2500)	2.4118 (1.3302)
Creative Writing	3.8246 (.9282)	3.4758 (1.1150)	3.6522 (.9253)	3.5098 (1.0785)

Table 4.
Middle Level Programs & Practices

Variable	Mean	SD
Interdisciplinary teams	2.4628	1.5780
Peer tutoring	1.9608	1.1583
Cross-age tutoring	1.3552	1.0832
Core curriculum	3.9143	1.3710
Flexible scheduling	1.5378	1.7172
Homeroom guidance & counseling	2.4371	2.2499
Mini-classes	1.0015	1.4158
Departmentalized classrooms	3.8870	1.5308
Cooperative learning	3.4081	1.0998
Adult-to-child relations	1.8056	1.6083
Exploratory activities	3.1994	1.5165
Mastery learning	2.5190	1.4522
Personal/Social Development	2.7723	1.4561
Intramural sports	2.8804	1.6025
Interscholastic sports	2.3184	1.6403
"Caught in the Middle"	3.2128	1.6892
Heterogeneous grouping	3.9877	1.0751
Parent Involvement	2.2989	1.3988

Table 5.
Policy Factors

Variable	Mean	SD
Federal policy	2.4747	1.3498
State policy	4.1707	.9599
District policy	4.0601	1.0510
School policy	4.0510	1.0777
School administration	3.6752	1.2814
Cal. Assessment Program	4.0421	.9909
Curriculum guidelines	3.9676	.9734
Textbooks	3.1883	1.2847
Curriculum coordinator	2.4196	1.5955
Writing Workshops/Seminars	3.4622	1.2244

respectively. As a group, the middle level schools tend to stress core curriculum, departmentalized classrooms and heterogeneous grouping. In turn, cross-age tutoring, mini-classes, and flexible scheduling are relatively infrequently implemented.

The respondents felt that state, district, and school policy as well as school administration, the California Assessment Program and curriculum guidelines impacted the writing curriculum to a great degree. Federal policy and curriculum coordinators were perceived as having a lesser impact.

Means, standard deviations, and ANOVA tests for significance by grade span for the questions on school programs and practices are shown in Table 6 and for the questions on policies influencing the middle level writing curriculum in Table 7.

ANOVA procedures performed on the data shown in Table 6 indicate that the four grade span groups differ significantly on all but one variable, adult-to-child relationship programs. K-8 schools made use of a significantly larger number of interdisciplinary teaching teams, peer tutoring, cross-age tutoring experiences, flexible scheduling, exploratory programs, and interscholastic sport activities for their students than did any of the three other grade span groups. K-8 schools also offered more core curriculum experiences, homerooms for guidance and counseling, mini classes, and parent involvement programs than did either the 7-8 or 7-9 schools.

Table 6.
School Programs
Group Means, (Standard Deviations), & Level of Significance
by Grade Spans

[Principals, counselors, and teachers were asked to determine the approximate number of 6th, 7th, and 8th grade students in their school were exposed to the following practices, using the this scale: None = 0; Few = 1; Some = 2; About one half = 3; Most = 4; All = 5.)

Variable	K-8 (n=95)	6-8 (n=224)	7-8 (n=247)	7-9 (n=205)	F	p
Interdisciplinary Teams	2.9733 (1.7789)	2.4483 (1.5061)	2.3304 (1.6188)	2.4368 (1.4991)	3.2095	.0226
Peer Tutoring	2.5056 (1.2803)	1.9217 (1.1818)	1.8128 (1.0331)	1.9347 (1.1374)	8.2572	.0000
Cross-age Tutoring	1.9773 (1.0168)	1.3333 (.9843)	1.0752 (.9837)	1.4255 (1.2060)	15.9420	.0000
Core Curriculum	4.3444 (1.0403)	4.0092 (1.2772)	3.8485 (1.4168)	3.6888 (1.4987)	5.3396	.0012
Flexible Scheduling	2.2414 (1.9106)	1.5556 (1.6621)	1.5313 (1.7815)	1.1913 (1.4978)	7.5679	.0001
Homerooms for guidance/counseling	3.0225 (2.1266)	2.8440 (2.2887)	2.3574 (2.2833)	1.8173 (2.0670)	9.8064	.0000
Mini Classes	1.5658 (1.7308)	1.2282 (1.6022)	.8148 (1.2019)	.7421 (1.1737)	9.5027	.0000
Departmentalized Classrooms	3.5109 (1.8546)	3.7731 (1.3535)	4.0807 (1.4590)	3.9731 (1.5988)	3.6771	.0120
Cooperative Learning	3.7253 (1.1744)	3.5656 (.9494)	3.4340 (1.0894)	3.0556 (1.1497)	11.3102	.0000

-- Table 6 continued --

Variable	K-8 n=95	6-8 n=224	7-8 n=247	7-9 n=205	F	p
Adult-Child Relationship Programs	1.8904 (1.6796)	1.9048 (1.7325)	1.8821 (1.6321)	1.5621 (1.3749)	1.7641	.1528
Exploratory Activities	3.3049 (1.4630)	3.7454 (1.3792)	3.1584 (1.4855)	2.5574 (1.4883)	22.3183	.0000
Mastery Learning	2.7937 (1.5257)	2.6407 (1.4363)	2.5886 (1.3821)	2.1824 (1.4756)	3.9900	.0079
Personal/Social Needs Programs	2.9770 (1.6352)	2.9179 (1.4708)	2.8289 (1.4240)	2.4588 (1.3508)	4.4395	.0042
Intramural Sports	2.9213 (1.7071)	3.0806 (1.6383)	2.9565 (1.5520)	2.5450 (1.5314)	4.1027	.0067
Interscholastic Sports	3.1176 (1.4344)	2.5072 (1.6977)	2.1794 (1.6396)	1.8939 (1.5046)	12.7936	.0000
"Caught In The Middle"	2.6667 (1.9225)	3.7193 (1.5803)	3.4343 (1.5518)	2.6242 (1.6170)	15.7039	.0000
Heterogeneous Grouping	4.0549 (1.2768)	4.3088 (.8002)	3.9437 (1.0306)	3.6477 (1.1859)	13.8253	.0000
Parent Involvement Programs	2.6395 (1.5333)	2.5610 (1.3835)	2.1187 (1.3288)	2.0645 (1.3621)	7.2407	.0001

Table 7.
Policies Influencing the Writing Curriculum
Means, (Standard Deviations), & Level of Significance
by Grade Span

[Principals, counselors, and teachers were asked to rate the degree of influence each of the following has on the writing curriculum, using the this scale: None = 0; Little = 1; Some = 2; Moderate = 3; Significant = 4; Great = 5.]

Variable	K-8 (n=95)	6-8 (n=224)	7-8 (n=247)	7-9 (n=205)	F	p
Federal Policy &/or National Trends	2.4819 (1.4173)	2.4208 (1.3808)	2.4735 (1.3239)	2.5330 (1.3240)	.2206	.8821
State Curriculum Frameworks	4.2366 (.9017)	4.2685 (.9110)	4.1653 (1.0132)	4.0402 (.9632)	2.1318	.0948
District Policy	4.0957 (1.1646)	4.1256 (.9706)	4.0250 (1.1423)	4.0150 (.9641)	.5252	.6651
School Policy	4.2174 (1.0465)	4.1019 (1.0604)	4.1292 (1.0530)	3.8223 (1.1130)	4.3260	.0049
School Administration	4.0753 (1.0758)	3.7324 (1.2659)	3.7101 (1.3454)	3.3838 (1.2521)	6.7897	.0002
California Assessment Program	4.0215 (1.0213)	4.1502 (.9790)	4.1013 (.9733)	3.8601 (.9927)	3.3224	.0189
Curriculum Guidelines	3.7849 (1.2145)	4.0140 (.8747)	3.9873 (.9365)	3.9797 (.9895)	1.2978	.2741
Textbooks	2.7128 (1.4189)	3.1814 (1.2492)	3.1909 (1.3090)	3.4171 (1.1686)	6.5418	.0002
Curriculum Coordinator	2.5116 (1.6925)	2.3093 (1.6687)	2.4464 (1.5436)	2.4611 (1.5368)	.4652	.7067
Writing Workshops &/or Seminars	3.7097 (1.2121)	3.5581 (1.1581)	3.4219 (1.2950)	3.2872 (1.1926)	3.1470	.0246

The 6-8 schools offered more exploratory programs than did the other three grade span schools, more intramural sports programs than the 7-9s, more heterogeneous grouping of students than 7-8s or 7-9s, and more Caught in the Middle[1] programs than either K-8 or 7-9 schools.

The 7-8 schools had fewer cross-age tutoring programs than any of the other three grade span schools; more flexible scheduling, cooperative learning experiences, adult-child relationship programs, mastery learning, personal or social needs programs, Caught in the Middle programs, heterogeneous grouping and homerooms for guidance and counseling than the 7-9s and 7-8s were also more departmentalized than K-8 schools.

The 7-9 schools offered more cross-age tutoring programs than 6-8 schools and, like 7-8 schools, were more departmentalized than K-8 schools. In all other areas listed in Table 6, the 7-9 schools provided fewer programs when compared to the other three grade span schools.

In five areas pertaining to factors that influence the writing curriculum, the school groups differed significantly: school policy, school administration, the California Assessment Program, textbooks, and writing workshops and/or seminars. The 7-9 school respondents indicated that school policy and administration were less an influence on the writing curriculum than the other three grade span respondents indicated. In addition, the K-8 school respondents felt more strongly than the

---

[1]*Caught in the Middle* is the title of a document produced by the Middle Grades Task Force, sponsored by the California Department of Education. The document outlines many exemplary middle school practices and serves as a catalyst for schools to implement these programs.

respondents from all three other school grade spans that school policy and administration have a significant impact on the writing curriculum. Both 6-8 and 7-8 school respondents felt the school administration had a greater impact than the 7-9 respondents felt it had. The 6-8 and 7-8 school respondents indicated that the California Assessment Program had a greater impact on their schools' writing programs than the 7-9 respondents felt it had on their school's writing program. 7-9, 7-8, and 6-8 respondents felt that textbooks also have a greater impact on the writing programs in their schools than K-8 school respondents perceived them to have in their schools. Finally, K-8 respondents indicated that writing workshops and/or seminars had a greater impact on the writing curriculum than 7-9 respondents indicated they had in their schools.

Factor Analysis

While one way analysis of variance tests on the data indicated that significant differences do, indeed, exist among the four grade span school types, the large number of survey questions made conceptualization of the data unwieldy. Therefore, exploratory factor analytic techniques were used to understand better the underlying interrelationships among the variables. Exploratory factor analysis performed on the eleven teacher descriptive variables was able to produce four conceptually sound, orthogonal factors. Table 8 shows the eigenvalues and Table 9 the variable loadings on each of the four factors retained.

Table 8.
Eigenvalues & % of Variance Accounted For

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
1 (Experience)	1.15683	10.5	10.5
2 (Satisfaction)	1.10482	10.0	20.5
3 (Gender)	1.68717	15.3	35.9
4 (Preparation)	.73159	6.7	42.5

Table 9.
Rotated Factor Matrix

Variables	Factor 1 (Experience)	Factor 2 (Satisfaction)	Factor 3 (Gender)	Factor 4 (Preparation)
Gender	.07171	.04274	**.98399***	-.15427
Age	**.69265***	-.05261	-.04132	.03125
YrsTeach	**.94479***	-.06665	-.07025	.10700
Degree	**.34768***	.04421	.12966	.01051
Courses	.06948	.08589	.02193	**.45240***
Inservice	.30820	-.02738	.01524	**.53621***
Seminar	.08804	.09386	-.08610	**.33729***
Prepare	.05786	**.98899***	-.03091	.12884
Prefer	-.04704	**.36798***	.03499	.10797
DaysWrt	-.11864	.03164	.00032	**.43429***
TimeDiv	-.01809	.06568	-.06567	.20496

*Variables with high loadings on the factor

The four factors were labeled experience, satisfaction, gender, and preparation. Age, years teaching, and highest degree held all loaded on the first factor, experience. The second factor, satisfaction, was made up of two variables--the grades teachers felt prepared to teach and the grades teachers preferred to teach. Hence, it was assumed that this factor represented a proper balance or mix between what teachers felt they were prepared to do and what they were doing, i.e., teaching to a grade level for

which they were prepared and wanted to teach. Only one variable, gender, loaded on factor 3 and was therefore so labeled. Factor 4, preparation, is made up of the number of college writing courses taken, number of district in-service days dealing with the teaching of writing, number of summer writing projects or seminar attended, and the number of days teachers spent teaching students how to write. All these variables seem to indicate a level of teacher preparation.

The second factor analysis was performed on all twenty-six variables in Part II of the teacher surveys dealing with specific middle level writing curriculum components and instructional practices. Tables 10 and 11, show the eigenvalues and the factor loadings, respectively.

Table 10.
Eigenvalues and Percent of Variance

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
1 (Drafting)	5.57972	21.5	21.5
2 (Literature-based)	1.16755	4.5	26.0
3 (Integrated subjects)	1.53022	5.9	31.8
4 (Process)	.72940	2.8	34.6
5 (Motivation)	.70793	2.7	37.4
6 (One-on-one)	.57844	2.2	39.6
7 (Small group work)	.42919	1.7	41.2

Table 11.
Rotated Factor Matrix

Variable	Factors 1	2	3	4	5	6	7
PeerEdit	**.39***	.04	.05	.33	.01	.08	.29
CrAgeTut	.11	.09	.14	.03	.211	.22	.12
CoreCurr	.07	.25	.22	.16	-.09	.12	.06
InterTeam	.03	.07	**.35***	.06	.03	.12	.16
LargGroup	.01	.11	.08	.11	.02	.14	.32
SmGroup	.20	.13	.13	.13	.12	.07	**.73***
Individual	.09	.01	.17	.10	.15	**.42***	.30
ProgmIns	.01	.09	.29	-.06	.22	.26	.05
Prewrite	.25.	.16	-.08	**.60***	.19	-.01	.11
SentComb	.12	.04	.28	.23	**.33***	.10	.14
StorySt	.02	.08	.15	.11	**.70***	.05	.08
Interest	.07	.04	.38	.09	**.47***	.27	-.05
Process	.29	.17	.07	**.62***	.01	.09	.09
Holistic	.03	.04	.14	.48	.02	.15	.16
Criterion	.05	.03	.19	.30	.13	.05	.00
NormRef	-.01	-.05	**.45***	.19	.26	.01	-.01
Interview	.06	.12	**.41***	.17	.14	.36	.05
Conference	.22	.10	.16	.21	.04	**.72***	.11
Rewrite	**.72***	.19	.01	.18	.14	.18	.09
Multiple	**.83***	.11	.12	.17	-.01	.09	.03
ReadGpts	**.37***	.24	.20	.21	.09	.06	.29
Literature	.13	**.84***	.08	.21	.07	.04	.09
Reading	.12	**.72***	.14	.03	.11	.09	.15
Essay	.16	.34	**.45***	.06	.06	.07	.08
Research	.05	.22	**.54***	-.02	.18	.14	.15
Creative	.17	.32	.30	.09	.28	.05	.14

*Variables with high loadings on the factor

Because the first factor in Table 10 accounted for 21.5% of the variance and the other six factors combined only accounted for 20.7%, it may well be that only one factor actually exists from among the seven retained. The variables loading most highly on this factor are peer editing, rewriting, multiple drafts, and read-around

groups. This makes logical sense because these four variables are components in drafting phase of producing written text. Often classmates share and edit one another's work and produce a revised text based on this input. Therefore, this factor was labeled "drafting."

Still, the other six factors made conceptual sense, i.e., literature and reading tend to go together (factor 2), interdisciplinary teams may assign more essay and research/library papers and reports (factor 3), the process approach to teaching writing inescapably includes prewriting techniques (factor 4), sentence combining, story starters and interest inventories are all methods of motivating students to write (factor 5), individualized instruction and student-/writer-teacher conferences both require one-on-one instructional methods (factor 6), and small group work is, in and of itself, a bona fide instructional grouping strategy (factor 7). Therefore they were given the following labels: factor 2 = Literature-based; factor 3 = integrated subjects; factor 4 = process; factor 5 = motivation; factor 6 = one-on-one; factor 7 = small group work.

The next two factor analysis procedures included responses from all three respondent groups -- teachers, counselors, and principals. The eighteen variables identified as School Programs and Practices in Part III of the teacher surveys and Part II in the counselor and principal surveys were used. Table 12 shows the factor eigenvalues and Table 13 shows the factor loadings for these data.

Table 12.
Eigenvalues and Percent of Variance

Factor	Eigenvalue	Percent of Variance	Cumulative Variance
1 (Personal Development)	1.54390	8.6%	8.6%
2 (Tutoring)	3.01101	16.7%	25.3%
3 (Alternative Curriculum)	.87427	4.9%	30.2%
4 (Interscholastic Sports)	.43279	2.4%	32.6%

Table 13.
Rotated Factor Matrix

Variables	Factor 1 (Personal Develop.)	Factor 2 (Tutoring)	Factor 3 (Altern. (Curr.)	Factor 4 (Intersch. Sports)
InterdisTeams	.16945	.22718	.25628	.03000
PeerTutor	.11894	**.77411***	.10524	.07742
Cr-AgeTutor	.04072	**.61152***	.18275	.09159
CoreCurr	.26091	.20760	.22006	-.01145
FlexSched	.08072	.17534	**.48313***	.14914
HR-Gud/Coun	.26034	.05114	**.39421***	-.00272
MiniClasses	.15286	.11792	**.52004***	.04852
Departmental	.19626	-.05020	-.12054	.01131
CoopLearn	**.47611***	.23273	.15865	.09339
Adult-Child	**.46383***	.13447	.39085	.01503
Exploratory	**.45745***	-.00697	.24355	.07884
MasteryLrn	.29007	.19740	.22035	.11416
Per/Soc	**.57637***	.18217	.21620	.05334
IntramuralS	**.34094***	.11044	.08603	.31426
InterscholS	.12268	.12269	.09902	**.97931***
"Caught-Middle"	**.50277***	.10403	.12916	.04475
HetroGroup	**.41079***	.00103	.13780	.06128
ParentInvol	**.47311***	.22266	.21208	.14718

Factor 1 was labeled Personal Development. Each of the nine variables that load most heavily on this factor is concerned with some type of inter- or intra-personal skill relationship: cooperative learning, adult-to-child relationship programs, exploratory programs, personal/social needs, intramural sports, Caught in the Middle, heterogeneous grouping, and parent involvement programs. Factor 2 was labeled Tutoring, as both peer and cross-age tutoring loaded most heavily, here. Factor 3 was labeled Alternative Curriculum. Here, flexible scheduling, homerooms for guidance and counseling, and mini-classes all loaded heavily. Factor 4, Interscholastic Sports was made up of that variable only, and should have been, as this was the only variable dealing with competitive sports programs.

Interdisciplinary team teaching, core curriculum, departmentalized classrooms, and mastery learning did not load heavily on any of the four factors. This is apropos, for each of these programs/practices is conceptualized as an independent component, unrelated to the other variables and, therefore, would necessarily be viewed as separate from the other programs/practices listed under this section.

The fourth exploratory factor analysis procedure was performed on the ten variables labeled "Factors Influencing the Writing Curriculum" -- Part IV of the teacher survey and Part III of the counselor and principal survey. Two factors explained 41.5% of the variance within this category, shown in Table 14. Table 15 the factor loadings for these data.

Table 14.
Eigenvalues and Percent of Variance Explained

Factor	Eigenvalue	Percent of Variance	Cumulative Variance
1 (Admin. Expect.)	3.37530	33.8%	33.8%
2 (Curr. Expect.)	.77489	7.7%	41.5%

Table 15.
Rotated Factor Matrix

Variables	Factor 1 (Admin. Expect.)	Factor 2 (Curr. Expect.)
Federal Policy	.15981	.12582
State Policy	**.44039***	.16648
District Policy	**.62104***	.15698
School Policy	**.92273***	.29861
School Administration	**.68570***	.26928
CA Assessment Program	.23165	**.53988***
Curr. Guidelines	.30937	**.60924***
Textbooks	.16704	**.34550***
Curr. Coordinator	.18053	**.35781***
Writing Workshops	.07317	.28444

The variables state policy, district policy, school policy, and school administration all loaded on Factor 1 -- "Administrative Expectations." The variables California Assessment Program, curriculum guidelines, textbooks, and curriculum coordinator all loaded on Factor 2 -- "Curriculum Expectations." The variables federal policy and writing workshops did not load on either factor.

Results

Policy Implications

The data indicate that the middle grades writing curriculum can be characterized even though differences do exist among the four grade span school types. The differences are relatively few, and the writing curriculum is more similar than different across school grade spans. The variable set used to describe the writing curriculum can be theoretically conceptualized, but bona fide differences are attributable more directly to philosophical commitment than to grade span configuration.

One way to conceptualize the writing curriculum is to highlight similarities and differences among the grade span types by categorizing the data into components, as shown in Table 16. These components are conceptual categories made-up of variables from the set of survey questions used to describe the writing curriculum. Sometimes a category is made-up of variables that all have a similar impact, such as "Literature-based" which is made-up of the variables literature and reading, both of which have a high level of use taking all school grade span types together. Sometimes a combination of high level and moderate level of implementation constitute a category, as in the case of "Drafting" which is made-up of two frequently used practices, rewriting and multiple drafts, and two moderately used practices, peer editing and read-around groups. The category labeled "Integration" has four low level of implementation variables and one moderately used writing characteristic.

Table 16.
Characteristics of the Middle Grade Writing Curriculum

Major Categories & Variables	Frequency of Use		
	< 50%	= 50%	> 50%
Drafting:			
Rewriting			X
Multiple drafts			X
Peer editing		X	
Read-around groups		X	
Literature-based:			
Literature			X
Reading			X
Integrated Subjects:			
Interdisciplinary team teaching	X		
Norm-referenced grading	X		
Interviewing	X		
Research/library papers, reports	X		
Essay exams		X	
Process:			
Teaching "the process"			X
Prewriting			X
Motivation:			
Sentence combining		X	
Story starters		X	
Interest inventories	X		
One-on-one instruction:			
Individualized	X		
Writer-teacher conferences	X		
Small group work		X	
Large group work		X	
Programmed instruction	X		
Creative writing		X	
Holistic grading		X	
Criterion referenced grading	X		
Cross-age tutoring	X		
Core curriculum			X

The first seven categories (bolded in Table 16) are all theoretical and conceptually sound, based on the factor analytic techniques applied to the data set. The last seven categories are made-up of single variables, that did show significant underlying relationships with any other variable(s).

The middle grades writing curriculum is most often a part of the core curriculum which integrates English language arts, history/social studies, science, and mathematics. Prewriting techniques are stressed as part of the writing "process" emphasizing rewriting and multiple drafts. Literature and reading are also integral components of most middle level writing programs, possibly reflecting a whole language approach. While no one type of writing assignment was used exclusively, creative writing assignments and/or essay exams were more commonly used than were library/research papers or reports.

Little use is made of integrated subjects, one-on-one instruction, programmed instruction, criterion referenced grading, or cross-age tutoring. Peer editing, read-around groups, and motivational techniques are used about fifty percent of the time. Large and small group work is used about half the time, to the exclusion of programmed instruction and other individual work. This lack of individual attention may not necessarily be cause for alarm. Even though some aspects of writing call for highly individualized processes, the great degree of group writing activities that the data indicate are taking place may be in concert with the need for more socially interactive curricular practices. These group writing experiences that are taking place in middle level classrooms could be filling social needs that are not being met in the regular school programs and practices.

In terms of differences among the four grade spans, the data indicate that K-8 teachers employ more writing program features more frequently than any of the other three groups of teachers. While it is not known why this is so, one may surmise that the greater number of grade spans in the school provides more flexibility in organization, and school-within-a-school structures may also exist.

Both K-8 and 6-8 schools use peer editing more than the 7-8 and 7-9 schools. K-8 teachers make greater use of cross-age tutoring than do 7-8 schools, and K-8 teachers also assign more library/research papers or reports than either 7-8 or 7-9 teachers. All other facets of the writing program are more alike than different among the grade spans.

In addition, the middle level writing curriculum consists of either a continual allocation of instructional time or some combination of continual and separate instructional blocks of time set aside for direct instruction teaching student how to write. Sixty days or more (one third of the school year in the English language arts classroom) is devoted to

some type of direct writing instruction. These instructional formats and time frames do not vary significantly across grade spans.

The "typical" middle level English language arts teacher is a female between the age of 40 to 49 with a bachelor's degree and has been teaching full time for twelve to thirteen years. This teacher provides writing instruction to students in either the 6th, 7th, or 8th grade only -- seldom teaching to more than one grade level. The "typical" teacher has never attended a National Writing Project summer writing seminar, but has attended almost nine different district sponsored in-service days

dealing with the teaching of writing. Most teachers feel prepared to teach at the middle grades level, and even more teachers prefer to teach to this age group.

These teacher characteristics differ among the grade spans for K-8 schools only. The teachers in K-8 schools are younger and have been teaching fewer years. Also, K-8 schools have a significantly greater number of males than 6-8 schools.

The middle level schools surveyed as one group tend to stress a core curriculum, cooperative learning, exploratory activities, and other recommendations as outlined in Caught in the Middle. These are implemented within a departmentalized structure, grouping students in a heterogeneous fashion. Flexible scheduling in infrequent and mini-classes and cross-age tutoring are seldom employed. Few adult-to-child relationship programs are in place, and peer tutoring is experienced by some but not many students.

Significant differences among the school grade span types regarding the level of implementation of these programs and practices can be viewed as the level of commitment toward the middle school philosophy. Viewed in this way, a general observation can be made: as school grade spans move toward the inclusion of lower grade levels, i.e., toward the elementary orientation, the level of philosophical commitment to middle school philosophy tends to increase. At the extremes, K-8 schools have a higher level of commitment than do the 7-9 schools. It is interesting to note, though, that 6-8 and 7-8 schools implement more Caught in the Middle recommendations, supposedly a catalyst for commitment to middle school philosophy. Also, 6-8 schools are implementing Caught in the Middle at significantly higher level than either K-8 or 7-9 schools.

When the level of philosophical commitment is compared to the writing program differences among grade spans, the same shift in orientation is found. The K-8 schools have a higher level of commitment to middle school philosophy and, at the same time, employ more writing programs features at a higher level of use than do the other grade span groups. Again, as a higher grade level is included in the school structure, moving toward the secondary and/or high school orientation, both philosophical commitment and the level of implementation of various writing curriculum features decrease. If the grade span configuration is a fixed element, that is a function of necessity, not design, then it would be reasonable to assume that the level of philosophical commitment is driving the writing curriculum. If the grade span configuration is a variable element, that is a function of design, not necessity, then it would be reasonable to assume that the level of philosophical commitment is driving the grade span. Hence, a high level of middle school commitment would produce a grade span of K-8 or 6-8 that is orientated toward the elementary program. This, in turn, would produce a more diversified, integrated writing curriculum than would be found in schools with orientations toward secondary and/or high school teaching.

A more careful look at this writing program that appears to change as the level of middle school philosophical commitment changes is in order, as well as the factors that may influence this commitment. With regard to teacher characteristics that may impact the philosophical commitment it is clear that age and teaching experience are highly correlated. However, it is the younger, less experienced teachers who are staffing the K-8 and 6-8 schools and who, in turn, are more committed to middle school philosophy and an integrated, more diverse writing curriculum. These teachers

feel prepared for and prefer to teach to the middle level, a significant number are male, and such preparation as college writing courses, in-service, and workshops have less impact their curriculum.

Administrative expectations have a significant impact on the writing curriculum and can be conceptualized as a combination of state, district, and school policies as well as school administration. Curriculum expectations can be conceptualized as a combination of the California Assessment Program, curriculum guidelines, textbooks, and curriculum coordinators, but curriculum policy as viewed by the respondents appears to be less a factor on the writing curriculum than the administrative expectations. While the California Assessment Program and curriculum guidelines do have a significant impact on the writing curriculum, curriculum coordinators have relatively little impact. Also, the respondents felt that federal policy was relatively insignificant.

The Conceptual Model

Policy analysis most often involves some type of balancing act, weighing one set of considerations against another. The data gathered in this study indicate that the balancing needs to take place on three dimensions: indirect, interactive and direct. Figure 1 is a representation of the most parsimonious model showing these impacts. While teacher characteristics and school grade span organization are only indirectly related to the writing curriculum, teacher characteristics are directly related to level of philosophical commitment while interacting with policy, and school grade span organization is directly related to teacher characteristics while interacting with policy factors. Philosophical commitment to middle school programs and practices is

impacted by teacher characteristics, interacts with policy, and has a direct relationship to the writing curriculum. Policy interacts with school grade span organization, teacher characteristics, and philosophical commitment to directly impact the writing curriculum.

Figure 2 shows how the writing curriculum was conceptualized. The seven factors -- drafting, literature-based, integrated subjects, process, motivation, one-on-one instruction, and small group work -- are only made up of a number of interrelated variables. In addition, seven more variables not shown -- large group work, programmed instruction, creative writing, holistic grading, criterion referenced grading, cross-age tutoring, and core curriculum -- contribute in differing ways to the writing curriculum. Hence, the conceptual diagram does not explain the complex workings of the variable interrelationships, it only shows that these factors exist and contribute to the development of the writing curriculum. In similar fashion, Figures 3 through 5 show the composition of the philosophical commitment, policy, and teacher characteristics exogenous variables. Grade span configuration is a single endogenous variable. Finally, Figure 6 shows the full latent variable model.

Any conceptual model is practical only when goals and objectives are made clear. After decision makers have agreed on the type of writing curriculum they want implemented in any given school or cohort of schools, determination of which factors to manipulate to bring about the desired goal can be made. If a writing program compatible with middle level programs and practices is desirable, then policy regarding school programs and policies will have a better chance of bringing about the desired change than will reorganizing the school grade span structure.

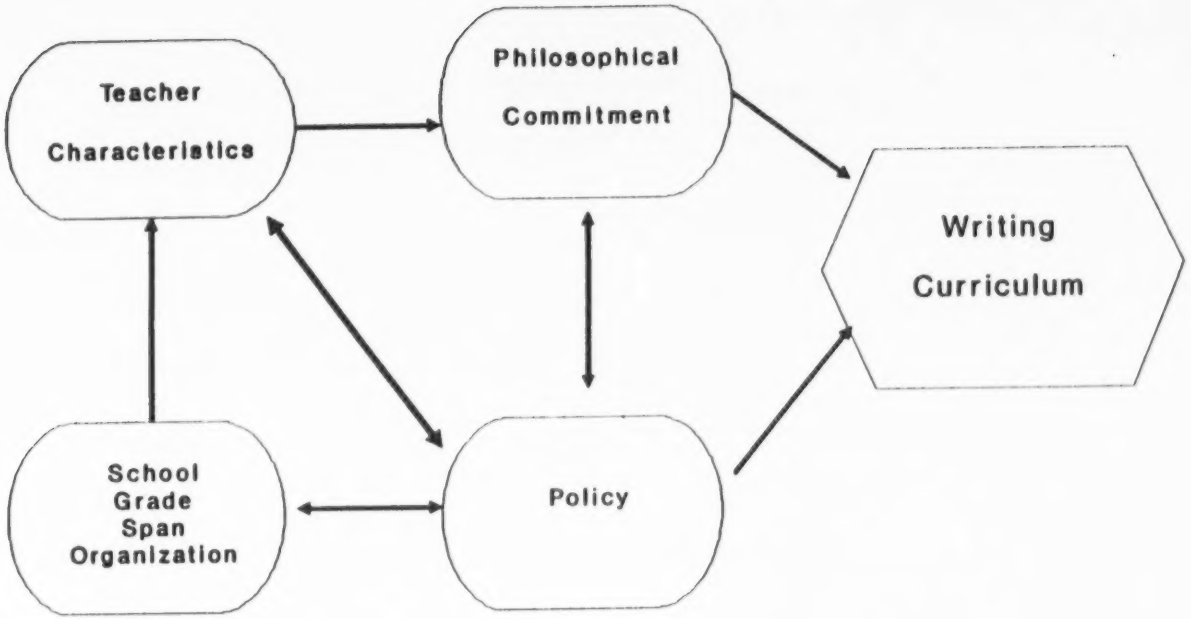

Figure 1.
Conceptual Model of Latent Variables
Impacting the Middle Level Writing Curriculum

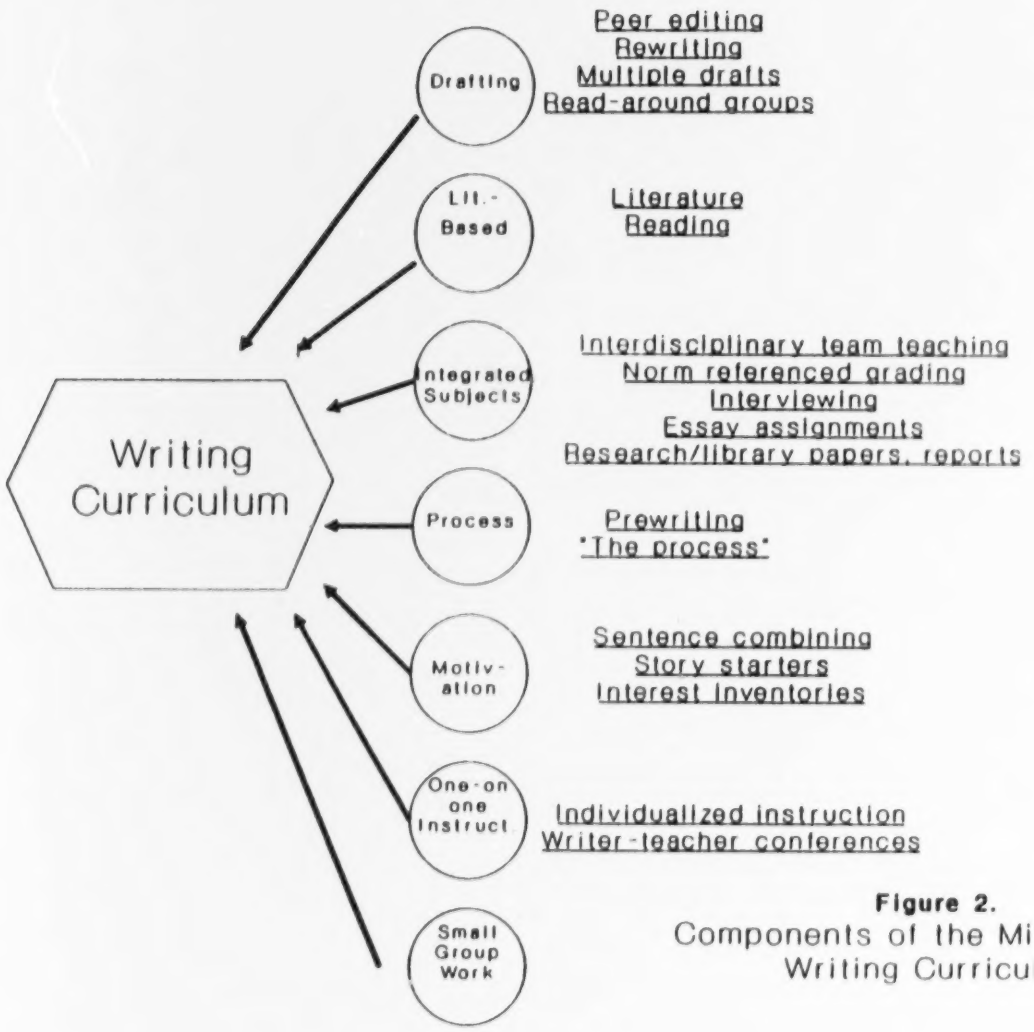

Figure 2.
Components of the Middle Level Writing Curriculum

David Hough
University of California

Figure 3.
Philosophical Commitment to Middle Level Programs and Practices

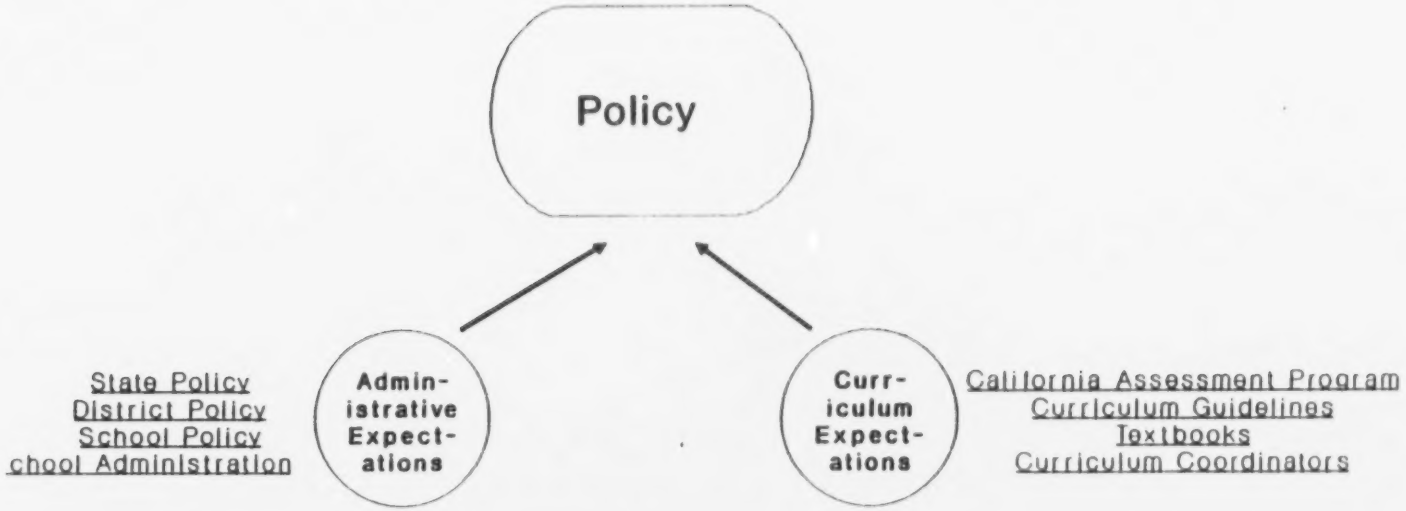

Figure 4.
Policy Influences on the
Middle Level Writing Curriculum

David Hough
University of California

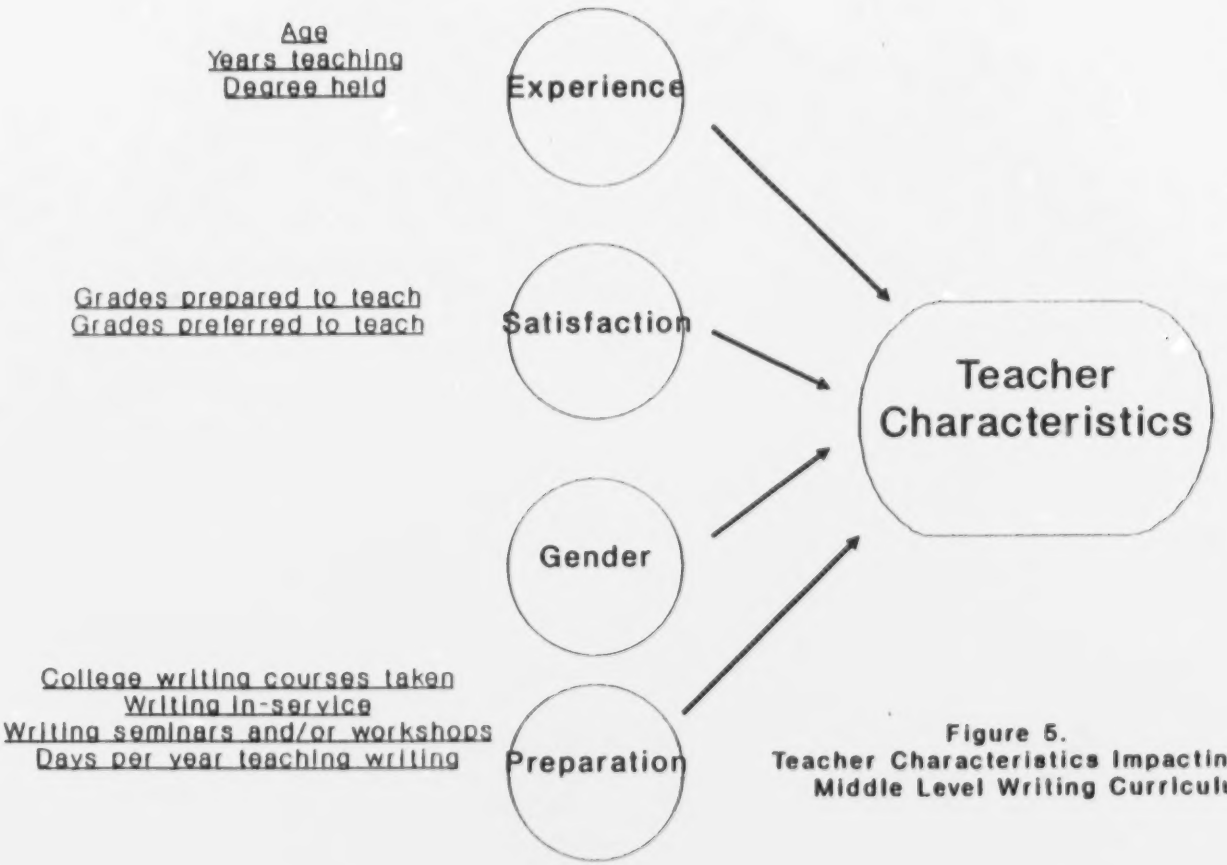

Figure 5.
Teacher Characteristics Impacting the Middle Level Writing Curriculum

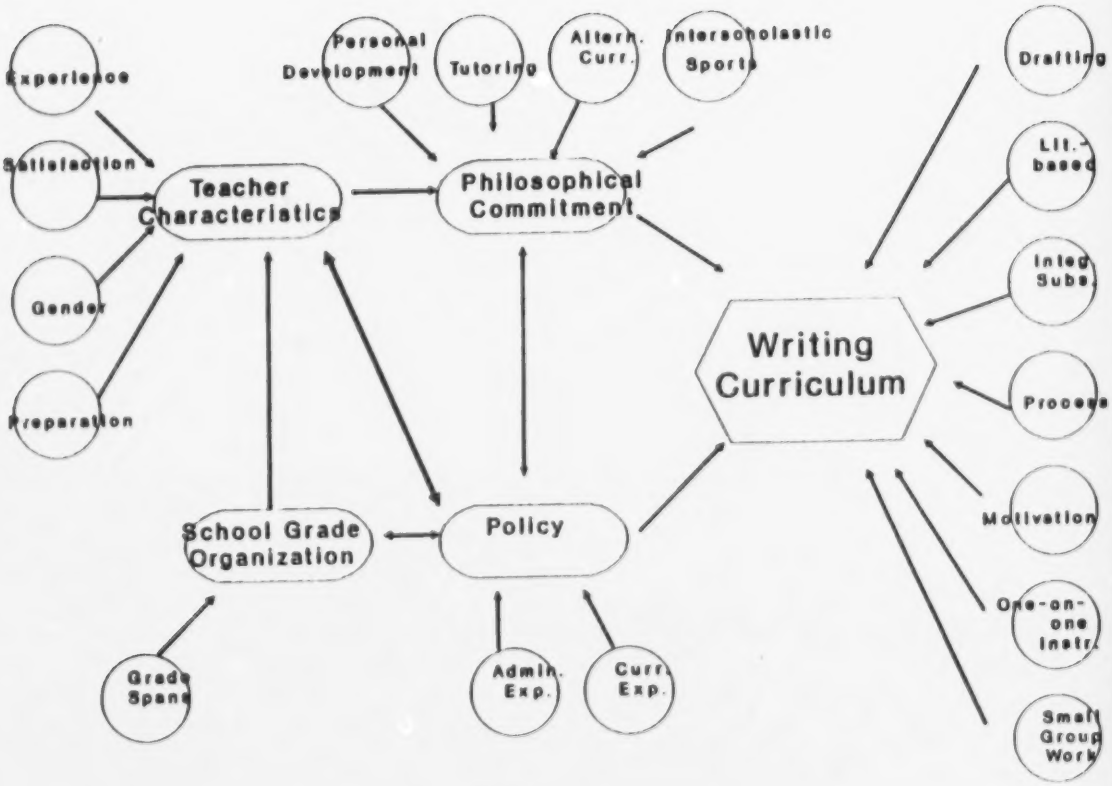

Figure 6.
Full Latent Variable Conceptual Model

David Hough
University of California

References

Alexander, W. M. (1964). The junior high school: a changing view. *NASSP Bulletin*, 48, 15-24.

Alexander, W. M. (1968). *A survey of organizational patterns of reorganized middle schools (final report no. 7-D-026).* Gainsville: University of Florida. ERIC Document Reproduction Service Number ED 024 121.

Alexander, W. M.. (1984). The middle school emerges and flourishes. *In Perspectives: middle school education, 1964-1984*, pp. 14-29. Lounsbury, J. E. (Ed.). Columbus, OH: National Middle School Association.

Alexander, W. M. (1988, February). Schools in the middle: rhetoric and reality. *Social Education*, 52(2), 107-109.

Alexander, W. M. & George, P. S. (1981). *The Exemplary Middle School.* New York:Holt, Reinhart, and Winston.

Arth, A. A., Johnston, J. H., Lounsbury, J., & Toepfer, C.F., Jr. (1985). *An agenda for excellence at the middle level.* Reston, Virginia: National Association of Secondary School Principals.

Becker, H. J. (1987). *Addressing the needs of different groups of early adolescents: effects of varying school and classroom organizational practices on students from different social background and abilities.* (Report Number 16, June). Baltimore, Maryland: VSP Industries.

Braddock, J. H. II, Wu, S. C. & McPartland, J. (1988). *School organization in the middle grades: National variations and effects. (Report No. 24).* Baltimore, Maryland: VSP Industries.

Brooks, K. & Edwards, F. (1978). *The middle school in transition: a research report on the status of the middle school movement.* Lexington: College of Education, University of Kentucky.

Calhoun, J. D. (1983). *Organization of the middle grades: a summary of research.* Arlington, VA: Educational Research Services.

Caught in the middle: Educational reform for young adolescents in California public schools. (1987). Sacramento, CA: California State Department of Education.

Commission on the Reorganization of Secondary Education. (1918). *Cardinal principles of secondary education.* Bulletin 1918, No. 35. Washington, D.C.: Department of the Interior, Bureau of Education.

Compton, J. B. (1976). The middle school: a status report. *Middle School Journal*, 7, 35.

Conant, J. B. (1960). *Education in the junior high years*. Princeton, NJ: Educational Testing Service.

Cuff, W. A. (1967). Middle schools on the march. *Bulletin of the National Association of Secondary School Principals*, 51, 82-86.

Education that works: An action plan for the education of minorities. (1990, January). Quality Education for Minorities Project, Massachusetts Institute of Technology: Cambridge, Massachusetts.

Eichhorn, D. H. (1983, May). Focus on the learner leads to a clearer middle level picture. *NASSP Bulletin*, 67, 45-48.

Eichhorn, D. H. (1973). The boyce medical study. *Educational dimensions of the emerging adolescent learner*. Springfield, MASS:Educational Leadership Institute, Inc.

Eichhorn, D. H. (1966). *The middle school*. New York: Center for Applied Research.

Eliot, Charles W. (1898). *Educational reform: essays and addresses*. New York: Century.

Elkind, D. (1978). Understanding the young adolescent. *Adolescence*, 13(49), 128-34.

Epstein, H. T. & Toepfer, C.F., Jr. (1978, May). A Neuroscience basis for reorganizing middle grades education. *Educational Leadership*, 35(8), 656-660.

Epstein, H. T. (1980). Brain growth and cognitive functions. In Steer, D. (Ed.). *The emerging adolescent, characteristics and educational implications*. Columbus, Ohio: National Middle School Association.

Gatewood, T. (1972). What research says about the junior high versus the middle school. *North Central Association Quarterly*, 46, 264-265.

George, P. S. & Oldaker, L. L. (1985). *Evidence for the middle school*. Columbus, OH: National Middle school Association.

Gruhn, W. T. & Douglass, H. R. (1947, 1956, 1971). *The modern junior high school*. New York: Ronald Press.

Hensley, R. B. (1985, September). Does brain-stage theory suggest a need for a major overhaul of junior high school curricula? *Clearing House*, 59, 39-41.

Hough, David L. (1990). "Middle grades writing theory: The black hole of education." Unpublished manuscript.

Hough, David L. (1989). *Vertical articulation for the middle grades*. Riverside, CA: University of California, Educational Research Cooperative. (ERIC Document Reproduction Service Number ED 021 644).

Hough, David L. (1989). *Middle level education in California: A survey of programs and organization*. Riverside, CA: University of California, Educational Research Cooperative. (ERIC Document Reproduction Service Number ED 021 645).

Johnston, H. J. (1984). A synthesis of research findings on middle level education. *In Perspectives: middle school education,* 1964-1984. John H. Lounsbury, (Ed.). Columbus, OH: National Middle School Association.

Johnston, J. H. & Markle, G. C. (1979). What research says to the practitioner about attitude development. *Middle School Journal,* 10(4), 21-23.

Kealy, R. P. (1971). The middle school movement, 1960-1970. *The National Elementary Principal*, 51, 20-25.

Lounsbury, J. H., (Ed.). (1984). *Perspectives: middle school education,* 1964-1984. Columbus, OH: National Middle School Association.

Lounsbury, J. H. & Johnston, J. H. (1988). *Life in the three 6th grades*. Reston, VA: National Association of Secondary School Principals.

Lounsbury, J. H. & Clark, D. (1990). *Inside grade six: From apathy to excitement*. Reston, VA: National Association of Secondary School Principals.

Lounsbury, J. H. & Vars, G. F. (1978). *A curriculum for the middle school years*. New York: Harper & Row.

Mager, R. F. (1968). *Developing attitude toward learning*. Belmont: Fearson.

McPartland, J. M. (1987, June). *Balancing high quality subject-matter instruction with positive teacher-student relations in the middle grades: effects of departmentalization, tracking and block scheduling on learning environments.* (Report No. 15). Baltimore, Maryland: VSP Industries.

McPartland, J. M., Coldiron, J. R. & Braddock, J. H. II. (1987, June). *School structures and classroom practices in elementary, middle, and secondary schools.* (Report No. 14). Baltimore, Maryland: VSP Industries.

Melton, G. E. (1984). The junior high school: successes and failures. In *Perspectives: middle school education,* 1964-1984. John H. Lounsbury, (Ed.), Columbus, OH: National Middle School Association.

Middle grades reform: A casebook for school leaders. (1990, May). Filby, N. N., Lee, G. V., & Lambert, V., (Eds.). San Francisco, CA: Far West Laboratory for Educational Research and Development & the California Association of County Superintendents of Schools.

National Education Association. (1894). *Report of the committee of ten on secondary-school studies.* New York: American Book Company.

Quality criteria for middle grades: Planning, implementing, self-study, and program quality review. (1990). Sacramento, CA: California Department of Education.

Rosenshine, B. (1980). How time is spent in elementary classroom. In Denham, C. & Lieberman, A. *Time to learn.* Washingtion, D.C.: Department of Health, Education and Welfare, National Institute of Education.

Sylwester, R. (1982). A child's brain, part 1. *Instructor,* 92(2), 90-92, 94, 96.

Sylwester, R., Chall, J. S., Wittrock, M.C. & Hart, L. A. (1981, October). The educational implications of recent brain research. *Educational Leadership,* 39(1), 6-17.

Tanner, J. M. 1962. *Growth at adolescence, 2nd edition.* London: University of London Press, Ltd.

"This We Believe." (1982). Columbus, OH: The National Middle School Association.

Toepfer, C. F., Jr., Lounsbury, J. H., Arth, A. A. & Johnston, J. H. (1986, September). Editorial. *Clearing House,* 60(1), 6-10.

Turning points: Preparing American youth for the 21st century. (1989). Washington, D.C.: Carnegie Council on Adolescent Development.

Valentine, J. W., Clark, D. C., Nickerson, N. C., Jr., & Keefe, J. W. (1981). The middle level principalship, vol I. In *A survey of middle level principals and programs.* Reston, Virginia: National Association of Secondary School Principals.

Wiles, & Thomason, J. (1975). Middle school research 1968-1974: a review of substantial studies. *Educational Leadership,* 32, 421-423.